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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

MURRAY ET AL.

APPLICATION NO: TO BE ASSIGNED

FILED: OCTOBER 22, 2001

FOR: METHODS FOR USE OF MPL LIGANDS WITH PRIMITIVE HUMAN

STEM CELLS

Commissioner for Patents Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination of this application, please amend the specification as follows:

Please cancel claims 1-62 of the specification. Please add the following new claims 63-65:

63. A method for genetically modifying a population of human hematopoietic stem cells, comprising the steps of:

culturing *in vitro* an initial hematopoietic cell population comprising human CD34⁺Thy-1⁺ hematopoietic stem cells in a medium comprising a myeloproliferative receptor (mpl) ligand, wherein said population of hematopoietic stem cells proliferates to expand the number of CD34⁺ cells in a final cell population;

transducing said hematopoietic cell population with a viral vector comprising a gene of interest, wherein said final cell population comprises human hematopoietic stem cells that have been genetically modified by integration of said gene of interest into the cells; and

transplanting said final cell population into a recipient to provide long term hematopoietic reconstitution.

- 64. The method of claim 63, wherein said initial hematopoietic cell population is obtained from said recipient.
- 65. The method of claim 64, wherein said gene of interest is an antisense or ribozyme sequence.

Respectfully submitted,

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